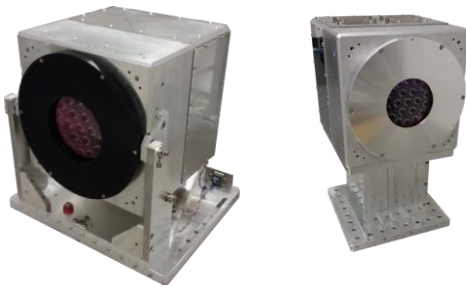


**MD-AME mirrors use  $\mu$ AME-ST\* actuators for wavefront correction: the optical surface retains its shape even when the system is turned off and there is no impression effect (brand of the actuator) on the optical surface.**



*Deformable mirror*



*electronic rack*

- No printing effect on the optical surface
- High long-term stability when de-energized
- Possible correction during laser firing
- Low hysteresis (< 0.1%)
- Excellent linearity (> 99%)
- Possibility of rapid actuation strategy
- High correction amplitude
- High resistance to electromagnetic disturbances
- Actuators and optical surface are easily interchangeable

- Active surface: from  $\varnothing 22$ mm to  $\varnothing 800$ mm, circular or square, different angles of incidence
- Dielectric, metallic or hybrid optical surface (high LIDT, wide spectral band)
- Quantity of actuators adjusted according to the application
- Fixed high Zernike orders
- Compatible with all wavefront analyzers
- Possibility to add a motorized Tip-Tilt mount
- Electronic controller supplied with firmware developed by ISP System.
- MDStack software development kit to drive the electronic controller.
- Compatible with Windows or Linux environment

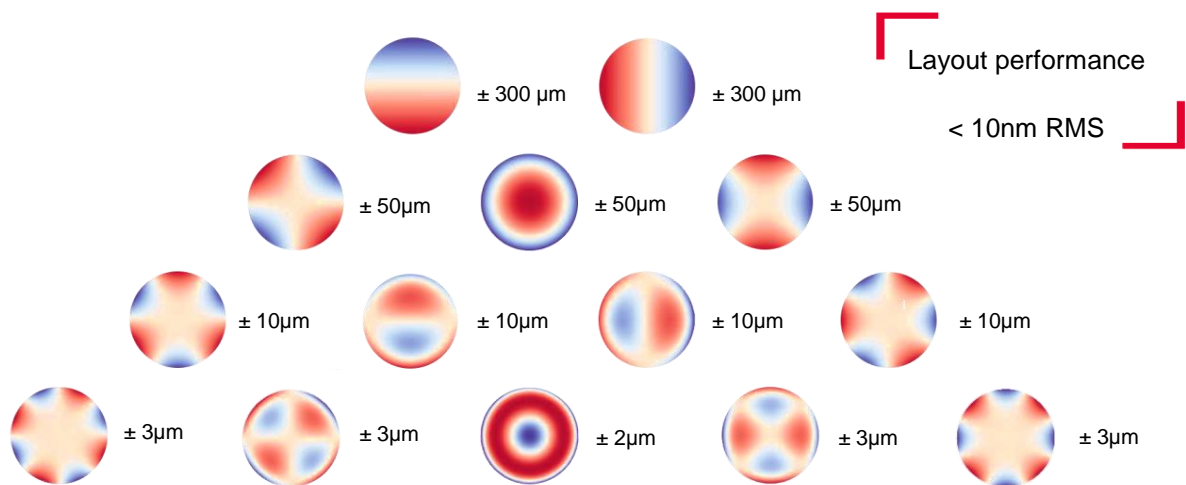
\*  $\mu$ AME-ST: Micro force actuators driven by stepper motors, patented by ISP System (1)

(1) Brevets ISP SYSTEM : EP1925959 A1 et FR2981139 A1

The MD-AME deformable mirror can be interfaced with any wavefront sensor technology (Shack Hartmann, lateral Shearing interferometer). ISP SYSTEM advises and supports customers on the integration of the deformable mirror in the adaptive optics loop system.

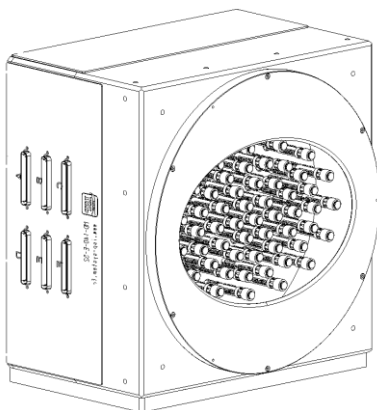
ISP SYSTEM offers dedicated solutions adapted to intense laser installations. These solutions have demonstrated their efficiency and stability on many laser installations around the world.

### Dynamics of achievable Zernike modes, Peak to Valley (PtV)



PtV (Peak To Valley) dynamics given for a useful surface of 80mm diameter with 35 actuators.

### Tailor-made solutions



Thanks to its experience and skills, ISP System offers its services to design tailor-made solutions to meet your needs.

The main custom features are:

- Vacuum / UHV compatibility
- Optical surface coating (wavelength, damage threshold, reflectivity... Angle of incidence et taille de la surface optique utile)
- Quantity and distribution of actuators according to the application (Dynamics of Zernike modes and achievable orders)
- Active or passive mirror cooling
- Environmental compatibility (on-board, space, etc.)
- MDStack SDK to drive the electronic controller
- Environment compatible with Windows, Linux, ...